

What is claimed is:

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1. A microscope for inspecting a semiconductor wafer, comprising:
an optical unit including objective lenses and oculars for observing the semiconductor wafer;
a display unit for magnifying and displaying an image of the semiconductor wafer observed by the optical unit;
a sample piece stage holding the semiconductor wafer;
a stage moving unit for moving the semiconductor wafer in an x-axis direction, a y-axis direction and/or a z-axis direction;
a stage rotation unit for rotating the semiconductor wafer in a horizontal direction;
a stage tilting unit for tilting the semiconductor wafer; and
a controller for controlling operation of the microscope.
 2. The microscope of claim 1, wherein the stage tilting unit includes:
a rotation shaft for rotatably supporting the sample piece stage; and
a motor for generating a power to vertically rotate the rotation shaft.
 3. The microscope of claim 2, wherein the motor of the stage tilting unit is a stepping motor.

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A2
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4. The microscope of claim 1, wherein the sample piece stage includes at least one wafer detecting sensor for detecting whether the semiconductor wafer is laid on the sample piece stage.

5. The microscope of claim 1, wherein the sample piece stage includes at least two wafer stoppers at a radius distance of a round portion of the semiconductor wafer from a central pivot of the semiconductor wafer.

6. The microscope of claim 1, wherein the sample piece stage includes a flat zone detecting sensor for detecting a flat zone of the semiconductor wafer.

7. The microscope of claim 1, wherein the stage rotation unit includes a vacuum line, a vacuum chuck including a vacuum absorber for holding the semiconductor wafer using a vacuum pressure, and a motor for generating a power to rotate the vacuum chuck.

8. The microscope of claim 7, wherein the motor of the stage rotation unit is a DC motor.

9. An inspection station for a semiconductor wafer, comprising:

a platform for holding the semiconducting wafer thereon;

rotating means for rotating the semiconductor wafer to a desired tilt angle;

a controller for adjusting the tilt angle of the semiconductor wafer; and

¹¹⁰
an optical unit for viewing an image of at least a portion of the semiconductor wafer to perform an inspection thereof.

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10. The inspection station of claim 9, further comprising a display unit for displaying the image of the portion of the semiconductor wafer.

11. The inspection station of claim 9, further comprising a platform moving unit for moving the platform along at least two axes.

12. The inspection station of claim 9, wherein the rotating means further comprises:

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a vacuum chuck for holding the semiconductor wafer on the platform; and
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a motor for supplying power to the vacuum chuck.

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13. The inspection station of claim 9, wherein the motor is a stepping motor.

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14. The inspection station of claim 9, wherein the platform includes at least one wafer detecting sensor for detecting whether the semiconductor wafer is laid on the platform.

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15. The inspection station of claim 9, wherein the platform includes at least one wafer stopper for aligning the semiconductor wafer on the platform.

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A4
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16. The inspection station of claim 9, wherein the controller includes means for selecting the desired tilt angle of the semiconductor wafer.

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17. The inspection station of claim 9, wherein the controller includes means for controlling a speed at which the tilt angle of the semiconductor wafer is changed.

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